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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/609,079	06/27/2003	Timothy J. Parker	3239P106	7575

8791 7590 04/05/2006

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EXAMINER

CAVALLARI, DANIEL J

ART UNIT

PAPER NUMBER

2836

DATE MAILED: 04/05/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/609,079

Applicant(s)

PARKER ET AL.

Examiner

Daniel J. Cavallari

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) 17, 19, 21-24, 29-31 and 34 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19 and 21-23 is/are allowed.
- 6) ☒ Claim(s) 1-3, 11, 12, 15, 16, 18, 25-28, 32 and 33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 June 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>9/2/04, 8/9/04</u> . | 6) <input type="checkbox"/> Other: _____ |

Election/Restrictions

Applicant's election with traverse of Group III, "A connector module", in the reply filed on 1/19/2006 is acknowledged. The traversal is on the ground(s) that (1) the inventions are not independent or distinct and (2) there is not a serious burden on the Examiner. This is not found persuasive because for the following reasons stated below.

The requirement is still deemed proper and is therefore made FINAL.

It appears the applicant has confused restriction practice (MPEP 806.05 et seq.) with the currently presented election of species. The applicant is directed to MPEP 806.04 et seq. which outlines the proper requirements for an election of species.

MPEP 808.01(a) states:

Where there is no disclosure of a relationship between species (see MPEP § 806.04(b)), they are independent inventions. A requirement for restriction is permissible if there is a patentable difference between the species as claimed and there would be a serious burden on the examiner if restriction is not required. See MPEP § 803 and §808.02.

Where there is a relationship disclosed between species, such disclosed relation must be discussed and reasons advanced leading to the conclusion that the disclosed relation does not prevent restriction, in order to establish the propriety of restriction. When a requirement for restriction between either independent or distinct species is made, applicant must elect a single disclosed species even if applicant disagrees with the examiner's restriction requirement.

The application contained five patentably different species which were categorized in terms of their function. For clarification purposes, the species will be further categorized in terms of their structure:

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- I. Figure 3, An AC disconnecting and regulating connector module.
 - Figure 3 pertains to a jack module (230) comprising a POE circuit (300) with a separate regulator (330) and separate AC disconnect (340).
- II. Figure 4, An AC disconnecting connector module.
 - Figure 4 pertains to a jack module (230) comprising a separate AC disconnect (340) and a POE circuit (300) integrally incorporating a regulator.
- III. Figure 5, A connector module.
 - Figure 5 pertains to a jack module (230) comprising a POE circuit (300) integrally incorporates both a regulator and AC disconnecting components.
- IV. Figure 7, A connector module with shift register.
 - Figure 7 pertains to a jack module (230) comprising a shift register.
- V. Figure 9, An opto-coupling connector modular.
 - Figure 9 pertains to a jack module (230) comprising of opto-couplers.

The above species represent patentably different inventions as the various embodiments contain patentably different components as follows:

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- Figure 3 pertains to a jack module (230) comprising a POE circuit (300) with a separate regulator (330) and separate AC disconnect (340).
- Figure 4 pertains to a jack module (230) comprising a separate AC disconnect (340) and a POE circuit (300) integrally incorporating a regulator.
- Figure 5 pertains to a jack module (230) comprising a POE circuit (300) integrally incorporates both a regulator and AC disconnecting components.
- Figure 7 pertains to a jack module (230) comprising a shift register.
- Figure 9 pertains to a jack module (230) comprising of opto-couplers.

Because of these differences, there would be a serious burden on the examiner if the restriction were not made. This burden being a different field of search for limitations provided within the various embodiments listed above.

The applicant has elected with traverse, Group III. However, the applicant has identified claims 1-34 as applying to this group which is improper. The examiner identifies claims 1-3, 11, 15, 16, 19, 21-23, 25-28, 32, & 33 as generic and claims 12 & 18 read on species group 3. Therefore, claims 1-3, 11, 12, 15, 16, 18, 19, 21-23, 25-28, 32, & 33 will be examined.

DETAILED ACTION

Drawings

The drawings are objected to for the following informalities:

- Figure 8 is completely illegible and can not be used for examination.

The drawings are further objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference character(s) not mentioned in the description:

- Figure 9 contains electrical component input/output labels which are not described or identified in the specification making the Figure confusing.

Furthermore, those label which are in the specification appear hand drawn and are difficult to read. Any important labels or components needed to understand the operation of the circuit should be included. Any labels or components that are not described or are not important should not be included in the Figure.

Corrected drawing sheets in compliance with 37 CFR 1.121(d), or amendment to the specification to add the reference character(s) in the description in compliance with 37 CFR 1.121(b) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be

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labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Abstract

The abstract is objected to as the sentence "Having a compatible pin configuration as an Ethernet jack module without PoE functionality..." does not accurately describe the invention. The adapter does in fact have PoE functionality. The word "without" appears to be a typo in which "with" was meant to be used.

Appropriate action is required.

Claim Objections

Claim 33 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Claim 32 recites the limitation of a first input adapted to receive power from a first neighboring connector module and an output adapted to provide power to a second neighboring connector module. The examiner fails to see how this differs from claim 33 which recites the limitation of "further comprises a cascade serial communication

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interface adapted for coupling to a serial communication interface of the first neighboring connector module”.

Appropriate action is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 15 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 15 recites the limitation of “magnetics” which is indefinite. The term “magnetics” is not one used in the art to refer to a specific type or class of components. The specification discloses “Magnetics (360) comprises a transformer and noise rejecting coil filter on the ferrite core”. The claim will be examined as best understood in which “magnetics” is taken to mean a transformer, as disclosed in the specification. The applicant is encouraged to positively recite the components in which “magnetics” is in reference to.

Appropriate action is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 11, 12, 15, 18, 25, 26, 32, & 33 are rejected under 35 U.S.C. 102(e) as being anticipated by Elkayam et al. (US 2003/0099076 A1).

In regard to Claims 1 & 2

- At least one Ethernet jack (24) adapted for coupling to a link (34) (See Figure 1 & Paragraph 69-72).
- Circuitry (56) coupled to the jack (24) and configured to perform power-over-Ethernet operations for supplying power through the jack (See Figure 2 & Paragraph 69 & 76).

In regard to Claim 11

- The connector module being implemented on a circuit board (See Paragraphs 6, 32, 73) within a switch device, read on by the switching hub (See Paragraph 32) including a housing (See Paragraph 32 & Figure 1 which shows the chassis (16) and Ethernet circuit board (14)) which encloses the connector module with at least one jack (24) accessible (See Figure 1).

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In regard to Claim 12

- The connector module adapted to receive DC voltage (See Figure 1 & Paragraph 18) and transmit power to IEEE 802.3af compliant powered devices coupled to the at least one Ethernet jack (24) of the connector module (See Paragraphs 22, 71, & 76).

In regard to Claims 15 & 18

- A plurality of jacks (24) adapted for coupling to a link (34) (See Figure 1 & Paragraph 69-72).
- Circuitry comprising a transformer (See Paragraph 75) which connects and supplies power to the jacks and POE circuitry, read on by the output power control circuits (58) which are used to vary the amount of power supplied over any of the plurality of Ethernet jacks (24) (See Figures 2, 3, & Table I & Paragraphs 76, 79, & 80).
- The POE circuitry (58) being coupled to the transformer (See Paragraph 75) as the connectors are described as coupled to the transformer, which are coupled to the support circuitry (55) which are coupled to the power distribution and control circuitry (56) which are coupled to the output power control (58) (See Paragraph 75).

In regard to Claim 25

- A housing (See Paragraph 32 & Figure 1 which shows the chassis (16) including at least one jack (24) (See Figure 1).
- POE circuitry (55, 58) contained within the housing (16) and directly coupled to the jack (24) (See Figure 2).

In regard to Claim 26

- The jack (24) being an Ethernet jack (See Paragraph 69).
- The POE circuitry (55, 58) mounted on a circuit board, read on by the switch board (See Figure 2 & Paragraph 73).

In regard to Claims 32 & 33

- The housing (16) comprising a first input (24) and a first output (24) read on by the various connectors (24) (See Figure 1 & Paragraph 69) in which multiple modules are connected to each other (See Paragraph 69) in which Elkayam teaches a switch (26) being connected to other switches (26).
- A cascade serial communication interface, read on by the multiplicity of jacks (24) (See Figure 1) in which other modules can be serially connected as well as cascaded from the other connected modules.

Although Elkayam teaches the connection of neighboring modules, he fails to explicitly teach power from a first neighboring connector module provided to a second

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neighboring connector module. However, Elkayam teaches the capability of providing power from one module to another module in a cascade fashion.

It has been held that the recitation that an element is "adapted to" perform a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchinson, 69 USPQ 138.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to transfer power from one module to another in a cascade fashion in order to power the devices without having to provide a separate power supply connection to each module.

Claims 25, 32, & 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Mouton (US 2002/0002672 A1)

In regard to Claim 25

- A connector module (WCH1) including a housing, read on by a cabinet (See Paragraph 19 & Figure 1) including at least one jack, read on by the ports (See Paragraph 20) formed in the housing (cabinet) and POE circuitry (S20) contained within the housing (See Figure 1 & Paragraph 23).

In regard to Claims 32 & 33

The connector module (WCH1) adapted to receive power from a first neighboring connector module, read on by the connector module (S30) and a first output adapted

to provide power to a second neighboring connector module (WGH1) (See Figure 1 & Paragraphs 17-27).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3 rejected under 35 U.S.C. 103(a) as being unpatentable over Elkayam et al. & Binder (US 2005/0047431).

Incorporating all arguments above of the connector module taught by Elkayam, Elkayam teaches connectors used to connect to computer devices (See Figure 2 & Paragraph 69) but fails to explicitly teach the type of connector (24) used.

Binder teaches a LAN outlet with POE capability (See Claim 47) in which an RJ-45 type connector is used (See Paragraphs 5 & 26).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the RJ-45 type connector as the specific connector (24) in the invention of Elkayam. The motivation would have been to use a specific connector well known and used in the industry (See Binder, Paragraph 26).

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Claims 16 rejected under 35 U.S.C. 103(a) as being unpatentable over Elkayam et al. & Pannell et al. (US 6,977,507)

Incorporating all arguments above of the connector module taught by Elkayam, Elkayam fails to teach the use of LED indicators for the status indication of the jacks.

Pannell et al. (hereinafter referred to as Pannell) teaches a network device (300) with a plurality of RJ-45 jacks (See Column 8, Lines 55-61) and the status of the jacks are displayed using LED's in which each jack has a corresponding LED (See Column 8, Line 62 to Column 9, Line 10) and the corresponding LED operates in a first state when the link is disconnected and a second state when the link is coupled.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the LED display taught by Pannell in which to indicate the jack status of the invention of Elkayam. The motivation would have been to provide a visual means of the status of the devices.

Allowable Subject Matter

Claims 19 & 22-23 are allowed.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Atias et al. (US 2005/0125507)
- Dove (US 2005/0136989)
- Pincu et al. (US 2005/0080516)
- Addy (US 2005/0229016)
- Giat et al. (US 2006/0053324)
- Fouladpour (US 6,608,264)
- Engel (US 2005/0201306)

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel J. Cavallari whose telephone number is (571)272-8541. The examiner can normally be reached on Monday-Friday 8:30-5:00.

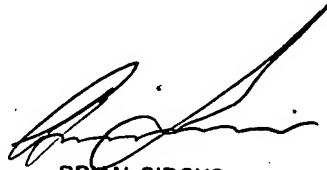
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on (571)272-2800 x36. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Daniel Cavallari

March 22, 2006



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